

no examination qualifying for entrance to the University. "Responsions," with its several alternatives, has gradually assumed the virtual position of such an examination; but there is still, so far as the University is concerned, no obligation to pass any one of these examinations before matriculating. The scheme outlined by Council provides for making either Latin or Greek optional, and allowing as substitutes certain modern languages, together with other subjects, such as elementary history, politics, chemistry, and physics. This provision is to apply to the existing Responsions, pending the establishment of a regular entrance examination.

A subject which has engaged the attention of Council at considerable length is that of the admission of a poorer class of students. The report is unfavourable to the project of a distinctively working-man's college within the University, but apparently not to the foundation of halls and hostels for students of narrow means, should endowments be forthcoming for such a purpose.

On the general question of finance, the report advocates the constitution of a new finance board, chosen partly from Council and partly from members of Convocation, both resident and non-resident, charged with the duty of advising the University as to its financial policy, and of reviewing the published accounts of University and colleges. The Chest Office would remain as an account office, an estates committee and office of works for the University; but the delegacy of the Common University Fund would cease to exist, its functions being transferred to the proposed general board of the faculties.

In dealing with the subject of fellowships, scholarships, and exhibitions, Council has been to a great extent limited by the fact that these matters are, under existing conditions, largely the private concern of the various colleges. Many recommendations have, however, been made, several of which there is reason to think are not unacceptable to the majority of the bodies concerned. It is proposed that scholars should have the option of resigning some or all of their emoluments, while keeping the name and status of scholar, the money thus saved going to the exhibition fund of the college, or being directly applied for the benefit of necessitous students. Exhibitions, it is thought, should be chiefly or entirely eleemosynary, and freedom should be allowed, under reasonable conditions, for scholars to pursue some other subject than that for which they were elected. The system of prize fellowship receives a modified degree of approval, and the bestowal of fellowships on a large scale expressly for research is discouraged. On the whole, the system of these pecuniary aids to learning would remain, even if all the suggestions of Council were adopted, very much as it is under present conditions. Many will think that the interests of learning and research, as distinct from routine teaching, have here received insufficient recognition.

Other matters which have come under consideration are the establishment of a diploma to suit the special requirements of a business career, the length of the academical year, the reform of the electoral boards for certain professorships, and the admission of women to degrees. Further steps are promised in all these directions.

In the foregoing remarks the aim has been to give a general idea of the proposals which have commended themselves to the Hebdomadal Council, under the presidency of the energetic Chancellor of the University. Criticism has for this purpose been avoided, but it is certain that opinions will greatly differ as to the merits of many of the measures advocated in the Chancellor's introduction and Council's

report. All, however, we venture to think, will sympathise with Lord Curzon in bespeaking the serious consideration of Congregation and Convocation for the result of so much thought and labour. The spirit in which the work of reform has been taken in hand could not be better expressed than in the concluding words of the Chancellor's introduction, words which we here take the liberty of quoting:—"We have made no attempt to build a new Oxford on the ruins of an old. We have too profound a conviction of the part that is still capable of being played by the older universities, and, as we think, by our own in particular, in the life of the nation, to wish in any degree to impair either its essential character or its inspiring influence. We want Oxford to remain what it is, but to become, if it may be, better; still to keep alive the transmitted flame, but to see that it illumines every corner of the temple of knowledge and is accessible to all sections of the community; above all, since our University is an imperial training ground for character and intellect, to arrange that the scheme of life which produces the former is worthy and sound, and that the scheme of instruction which develops the latter is comprehensive and efficient."

F. A. D.

MEDICAL EDUCATION IN THE UNITED STATES AND CANADA.

THE Carnegie Foundation has a dual function, to provide pensions for the profession in the United States and Canada, and "to encourage, uphold, and dignify the cause of higher education." It is in connection with the latter that the trustees have undertaken a study of medical education in these countries. The report, prepared by Mr. Abraham Flexner, a trained chemist, is in many respects a remarkable document, the publication of which, we are not surprised to hear, has caused a great sensation. There is no country in the world with medical schools at once so good and so bad as the United States. It would be hard to parallel in Europe conditions so favourable to the study of medicine at Harvard or the Johns Hopkins. On the other hand, a very large number of the medical schools are on a purely commercial basis, and offer an entirely inadequate education.

The report is divided into two parts. The history of medical education in the United States and its present status are set forth; the story is then told of the gradual development of the commercial medical school (a distinctly American product), of the modern movement for the transfer of medical education to the universities, and of the efforts to improve the standard of preliminary education. The present condition of medical studies is then fully discussed, and a forecast of the possible future is attempted.

The second part of the report gives in detail a description of the medical schools in each State, and in each province of Canada. Attention may be directed to chapters ii. and iii. of the report, dealing with the proper basis of medical education, and the actual basis, as containing much that is of interest to us in this country. The sections, too, on the laboratory branches and on the hospital and the medical school are very instructive; the first section is, in fact, an exceedingly able presentation of the whole subject of medical education. It is urged that the 155 medical schools at present existing should be reduced to thirty-one by abolition and consolidation.

The second part of the report is a critical analysis

¹ "Medical Education in the United States and Canada." A Report to the Carnegie Foundation for the Advancement of Teaching. By Abraham Flexner, with an Introduction by Henry S. Pritchett. (Bulletin Number Four.) Pp. xviii+346. (New York, 1910.)

of every medical school in the United States and Canada under the heads of "Entrance Requirements," "Attendance," "Teaching Staff," "Resources Available," "Laboratory Facilities," "Clinical Facilities." The condition of some of the commercial schools is scarcely conceivable, and Chicago is well called, in respect to medical education, the plague-spot of the United States. Englishmen will read with interest the report on the condition of medical education in Canada, and it is nice to hear that in point of construction and equipment the Toronto and Montreal laboratories are among the best on the continent. Praise is meted out to the medical school in the comparatively new city of Winnipeg.

It is the purpose of the Foundation to proceed at once with a similar study of medical education in Germany, France, and Great Britain, "in order that those charged with the reconstruction of medical education in America may profit by the improvements in other countries." We understand that Mr. Flexner will be in this country early in October to pursue his work. The report cannot but be most helpful. It is thoroughly well done; perhaps the only legitimate criticism is an insufficient appreciation by its author of the extraordinary progress which higher medical education has made in the United States in the past twenty-five years.

THE SHEFFIELD MEETING OF THE BRITISH ASSOCIATION.

THE meeting of the British Association at Sheffield concluded with the usual votes of thanks on Wednesday of last week. The attendance of members from outside was quite up to the average, but the influx of new local members was small, with the result that the year was a lean one for grants for research, and it was found necessary to draw on the balances from former years. Notwithstanding, however, the small local support of the association itself, the reception accorded was a very warm and hearty one, and the arrangements left little to be desired. A special feature of the meeting was the visits to the large works, the magnitude of the operations carried out, and the combination of science with practical organisation making a great impression on the association as a whole. Indeed, the hearty co-operation of city and University, and the way in which science is applied in all the large industries, has been a matter of constant reference amongst members, whilst the natural beauties of the surrounding district have come as a surprise to all. With the possible exception of one or two sections, the scientific level of the papers read was high, and although no startling new discoveries were announced, there were many papers showing very real progress on old lines. Possibly the meeting may be remembered as that at which the achievement of at last isolating the positive electron was announced by Sir J. J. Thomson.

The constitutional question of the relation between the sections and their constitution has been very fully discussed, but with no final result. The matter is a difficult one. The multiplication of sections tends to overweight the association, as well as to increase the difficulties of the locality to provide the accommodation required for additional section and committee rooms with their assortment of lanternists and attendants. It is becoming increasingly difficult for a large town of the second rank adequately to house the association. It was admirably provided for in Sheffield—a city of close on 500,000 inhabitants—but the number of towns comparable with it can be counted on the fingers of the two hands. On the other hand, it is difficult to see to what already exist-

ing action a new subject, such, for example, as agriculture, could be attached as a sub-section. Some think no new branches should be admitted; others suggest that the papers on such a branch should be distributed amongst existing sections according to their affinity; whilst yet another suggestion has been made that the papers should be read at a joint meeting of several sections interested, e.g. agricultural papers at a joint meeting of sections B, K, and F. At the recent meeting, however, the sub-section of agriculture has been a very successful and live one, managed in all respects as a separate section, and with a full complement of good papers.

At this year's meeting the attempt to bring together men of science of different categories working in allied subjects has been tried to a larger extent than in former years. There have been quite a large number of joint meetings of sections for the discussion of definite questions. It cannot be said that the result has been so generally successful as could be desired. Everybody acknowledges theoretically the value of such meetings, and most of those who have attended them their practical failure—at least, with certain brilliant exceptions, which merely show what they might be. The truth is that the conditions of success for such meetings have not been grasped by the organisers or the openers. It would be good policy on the part of the council to call a meeting of past recorders and sectional presidents to discuss this particular question. The complaint is very general that insufficient time is allowed, and no doubt there is some basis for this, but such discussions are apt to die out earlier than arranged, with consequent waste of time unless the whole discussions with set speakers is prearranged. Many of the most interesting discussions have been those arising spontaneously on some single paper. Not being reported, a speaker feels able to throw out half-considered suggestions or impressions of the moment, which strike fire and kindle the imagination of others, while all would hesitate to publish them in set form. Such discussions are really useful to the experts, and always interesting to the general audience. The failure of set discussions is as often as not due to the speaker who introduces the subject. Not a few feel called on to read a long paper of an hour's duration, taking the edge off the attention of their hearers and distracting them with a mass of details, instead of succinctly laying before them the definite points which require discussion. These remarks have been illustrated by special cases at the recent meeting. The joint discussions might be made so valuable that it is to be hoped the Council will take some steps to ensure that they are.

SECTION C.

GEOLOGY.

OPENING ADDRESS BY PROF. A. P. COLEMAN, M.A., PH.D.,
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The History of the "Canadian Shield."

CAN there be any greater contrast than Pleistocene Boulder Clay resting on Archæan gneiss, the latest of rocks covering the earliest, with almost the whole known history of the world in the interval between? It is a fascinating occupation for a geological dreamer to sit on some hillside in Scotland or Finland or Northern Canada, where the schists and gneisses rise in rounded ridges or bosses through Boulder Clay, and ponder on all the strange happenings that separate the clay from the rock beneath.

The clay, melting from its enclosed boulders under the frosts and rain, seems the very emblem of the fleeting things of yesterday; while the Archæan gneiss and greenstones are the type of the solid, imperishable framework of the earth, on which all the later rocks rest.

The Boulder Clay recalls the white surface of a